GOVERNMENT OF INDIA
ENVIRONMENT, FORESTS AND CLIMATE CHANGE
LOK SABHA

UNSTARRED QUESTION NO:341
ANSWERED ON:19.07.2016
Melting of Glaciers
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Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state:

(a) whether all the glaciers including Satopanth and Gaumukh in Uttarakhand are melting fast;
(b) if so, the details thereof and the reasons therefore;
(c) whether the Government proposes to conduct any research programme to ascertain the real causes for melting of glaciers;
(d) if so, the details in this regard;
(e) whether the Government proposes to seek foreign assistance for research on climate change in the Himalayan region; and
(f) if so, the details in this regard?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ANIL MADHAV DAVE)

(a)& (b) The studies carried out by ISRO, Wadia Institute of Himalayan Geology (WIHG), Dehradun and others institutions have revealed that majority of the glaciers are retreating (melting) at varying rates from 5 to 20 metre per year. Gangotri is one of the largest glaciers (30 km long) of Uttarakhand followed by Satopanth glacier (14 km). Both the glaciers are retreating but not at an alarming rate.

The studies carried out on melting of glaciers by in-situ measurements as well as Remote Sensing data indicate that the rate of retreat is not uniform for all glaciers. For example, Dokriani glacier in Bhagirathi basin is retreating between 15 and 20m /year since 1995, whereas Chorabari glacier in the Alaknanda basin is retreating 9-11m/year (2003-2014). A study on length and area changes of 82 glaciers located in the Bhagirathi and Alaknanda river basins has been carried out for the period from 1968 to 2006 using remote sensing data and the study suggests that glacier area decreased from 599.9km2 (1968) to 572.5km2 (2006),implying a net loss of 4.6% of the total area. However, glaciers in the Alaknanda basin and upper Bhagirathi basin lost 18.4km2 (5.7%) and 9.0km2 (3.3%), respectively in the similar period.

(c)& (d) A number of Institutions such as Geological Survey of India (GSI), Department of Space; Wadia Institute of Himalayan Geology (WIHG), Dehradun; Kashmir University, Jammu University, Sikkim University, Jawaharlal Nehru University, New Delhi and many others are engaged in monitoring and conducting research in the areas of glaciology. The Government has set up a Center for Glaciology at Wadia Institute of Himalayan Geology (WIHG) funded by Department of Science and Technology to carry out detailed investigations of glacier masses in the Himalayan region.

(e) & (f) There is no proposal with the Government to seek foreign assistance for research on climate change in the Himalayan region.

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